

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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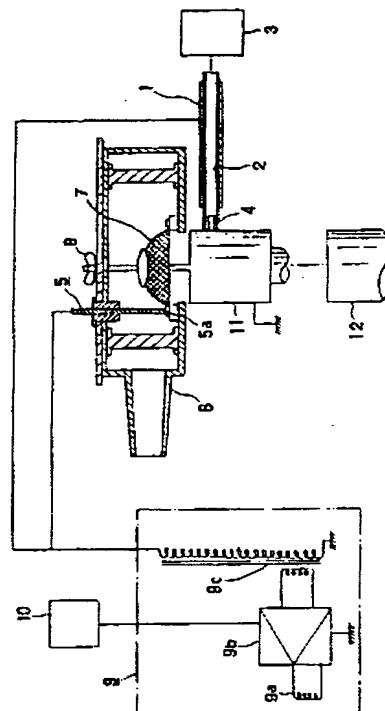
APPLICATION DATE : 11-03-88  
APPLICATION NUMBER : 63057542

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INVENTOR : TAKAHASHI HIDEYORI;

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TITLE : IONIZATION DEVICE FOR INTERNAL COMBUSTION ENGINE



ABSTRACT : PURPOSE: To contrive the reduction of CO and NO<sub>x</sub> or the like and the improvement of torque with a device simplified in its structure by providing a positive electrode positively ionizing a fuel particle and a negative electrode negatively ionizing suction air.

CONSTITUTION: A positive electrode 1, which positively ionizes fuel grains, is provided in a fuel circulating pipe 2. While a negative electrode 5, which negatively ionizes suction air, is provided in an air cleaner 6. The suction air is charged both in its nitrogen molecule and oxygen molecule with negative electricity by the negative electrode 5, and the nitrogen N<sub>2</sub> is not easily combined while the oxygen O<sub>2</sub> is easily combined. When the negatively ionized oxygen molecule is mixed with the positively ionized fuel grain in a carburetor 11, both the oxygen molecule and fuel grain are sucked and combined, and mixed gas in this condition is fed into a cylinder 12 from the carburetor 11.

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